## LIMITED WARRANTEE

Smoke  Signal Broadcasting guarantees (to the original purchaser) its disk system hardware for a period of 90  days  from  date  of purchase.   Smoke Signal Broadcasting will, at its option, repair or replace any disk system with a hardware defect returned to  it postpaid  within 90 days from date of purchase, provided that, in its opinion, the defect was not caused by  improper  handling  or improper  connection to the host computer or a malfunction of the host computer.  Shipping charges for return of the repaired  unit to the purchaser shall be paid be Smoke Signal Broadcasting.  The liability of Smoke Signal Broadcasting is specifically limited to repair  or  replacement  of the  hardware and shall not extend to consequential or incidental damages suffered by  the  user;  nor, shall  Smoke Signal Broadcasting be liable for any representation as to the suitability of the its disk systems to  any  particular user  application  unless  such  representation is in writing and signed by an officer of Smoke Signal Broadcasting.

In the event of a problem during the warrantee period:
1)  We suggest that you call  first  and  explain  your  problem. Technical  personnel  are  available  from 9 AM to 5 PM local California time at (213) 889-9340.  Many times  problems  can be solved quickly over the phone, thus, saving you time.
2)  If it is necessary to return your unit for  repair,  send  it to:

>       Smoke Signal Broadcasting
>       31336 Via Colinas
>       Westlake Village, CA   91361

3)  Be  sure  that the unit is packed adequately and that a brief explanation of the problem is enclosed with the unit.
4)  Be  sure  to  include  your return address and a phone number where you can be reached during business hours.

Some  states  do  not  permit  the  limitation  or  exclusion  of incidental  or  consequential  damages.   In  those  states  this limited warrantee is not valid and the system is sold AS IS.  See our repair policy.

While  in  the  interest of good customer relations, Smoke Signal Broadcasting will attempt to correct any software errors  brought to  its  attention,  the  software  is  provided  AS  IS  without warrantee.

This  warrantee  is  in lieu of all other warrantees expressed or implied.

## REPAIR POLICY

In most cases, repairs will be made within 7 days of receipt. No charge will normally be made for repairs to units returned to us within 90 days of purchase even in states where the limited warrantee does not apply. This should be construed only as a statement of policy and not as a guarantee or legal obligation to make such repairs.

After 90 days from date of purchase, repairs will be made according to a flat rate repair schedule unless the unit has been subject to physical damage or connected to improper voltages. The current charge for repairs to a disk system is $95.00. You pay the shipping charges to us, we pay the return charges. If outside the United States, these provisions do not apply and you should contact us for instructions. Generally, you will be referred to a repair facility in your country since customs clearance charges run about $100. This is in addition to shipping charges.

## SOFTWARE LICENSE

The purchaser of a disk system purchases, in addition to the hardware, a license for the limited use of the DOS-68 software supplied with the system. This license allows the purchaser to use the software on any disk system manufactured by Smoke Signal Broadcasting and to make copies of the software for use on any disk system manufactured by Smoke Signal Broadcasting. Use of the software on any other disk system or the copying of the software for any other use is a violation of this license unless specific written approval for other uses has been obtained from an officer of Smoke Signal Broadcasting.

## USER GROUP INFORMATION

Smoke Signal Broadcasting operates a 6800 program users group. Purchase of a SSB disk system and return of the warrantee registration form entitles the user to a one year membership to the users group. the purpose of the group is to provide a low-cost program exchange service to group members. We do not intend the users group to become a profit center for Smoke Signal Broadcasting, however, we will attempt to recover the direct expenses of program duplication, advertising of the user's group and of employees assigned to user group projects.

To help us meet the goal of a low cost program exchange service, we would appreciate the contribution of all types of programs for 6800 based systems - not necessarily disk based systems.

We are particularly interested in additional transient commands for our disk systems. If everyone will share with us the programs they have created to make the operation of their disk system more convenient to them, it will quickly enhance the value of all our systems.

It is hoped that shorter programs, 500 bytes or so, will be contributed without charge. For longer programs, where the contributor needs to recover some of his development costs, a royalty will be paid. Large general purpose programs (BASIC, FORTRAN, editors, etc) will be extensively advertised to insure wide distribution, low cost to the user, and reasonable compensation to the program author.

We believe that the SSB disk systems are by far the best disk systems available to the microcomputer user today. Your support of the users group will enable us to provide evolutionary changes to the system that will keep it the leader in microcomputer disk systems.

## DOS68 VERSION 5 MEMORY MAP

$6080 - $69FF    DFM program area

$6A00 - $6D7F    DOS monitor program area

$6D80 - $727F    Transient Command Area (TCA)

$7280 - $777F    Monitor program area

$7780 - $7FFF    DFM program area

$7F80 - $7FFF    I/O buffer for ROM boot routine

$3E00 - $3FFF    EXECute program area.  Used only when
                 the EXEC function is activated.

$0000 - $5FFF    Is assumed to be user area when not
                 used by the following commands.

$0100 - $3FFF    Is used by the "COPY" command

$0100 - $02FF    Is used by "SAVET" program

$0100 - $3FFF    Is used by "FORMAT" command

## BFD/LFD/CHIEFTAIN BOOT ENTRY POINTS

$8020 - DOS68    cold start boot entry - BFD/LFD
$E7E0 - DOS68    cold start boot entry - CHIEFTAIN

$A070 - $A07F    ROM temporary table
$A070 - $A079    Stack for ROM when booting.

## MONITOR ENTRY POINTS

| ENTRY ADDR | ENTRY NAME | FUNCTION: |
|---|---|---|
| $7280 | ZCOLDS | Monitor cold start |
| $7283 | ZWARMS | Monitor warm start |
| $7286 | ZOUTEE | Character output routine |
| $7289 | ZINCH | Character input routine |
| $728C | ZMON | JMP to ROM monitor |
| $7291 | ZFLSPC | Get a file specification |
| $7294 | ZGCHAR | Get current character from the line buffer |
| $7297 | ZGNCHR | Get the next character from the line buffer |
| $729A | ZANCHK | Check for alphanumeric |
| $729D | ZDIE | Print command string, error message, and exit |
| $72A0 | ZGETHN | Get a hex value from the line buffer |
| $72A3 | ZADDX | Add the B register to the index |
| $72A6 | ZOUTST | Print a string |
| $72A9 | ZTYPDE | Type the disk error message |
| $72AC | ZOUTHX | Print a byte in hex |
| $72AF | ZOUTHA | Print an address in hex |
| $72B5 | ZLINEI | Input edited line from the terminal |
| $72B8 | ZLP | FORTRAN Line printer output vector |
| $72BB | ZPEEK | Peek ahead at next char. in line buffer. |
| $72BE | ZOUTCH | User alterable output vector. |
| $72C1 | ZPUTCH | Directed output vector. |
| $72C4 | ZGETCH | Input directed vector. |
| $72C7 | ZSTAT | Terminal input status |
| $72CA | ZRESTR | Restore I/O vectors |
| $72CD | DCMDLN | Call DO processor. |
| $72D0 | ZEXCMD | Execute command |
| $72D3 | ZLOAD | LOAD - File loader |
| $72D9 | ZNAMEJ | Decode name and jump. |
| $72DC | ZCRLF | Print carriage return and line feed |
| $72DF | ZSTEXT | Enter user default file extension. |

## DOS68 PARAMETER TABLE

```
YMONV  EQU  PARTBL+$00    DISK MONITOR VERSION
YMEMAX EQU  PARTBL+$02    USER MEMORY LIMIT
YLINAD EQU  PARTBL+$04    LINE BUFFER ADDRESS
YLINPT EQU  PARTBL+$06    LINE BUFFER RESET ADDR
YBSCHR EQU  PARTBL+$08    BACKSPACE CHARACTER
YDLINE EQU  PARTBL+$09    DELETE LINE CHARACTER
YLPAUS EQU  PARTBL+$0A    LINE PAUSE CHAR
YLCONT EQU  PARTBL+$0B    LINE PAUSE RESUME
YABORT EQU  PARTBL+$0C    ABORT CHARACTER
YABRTV EQU  PARTBL+$0D    ABORT VECTOR ADDRESS
ZHCINT EQU  PARTBL+$0F    HARD COPY INITIALIZE
ZHCOUT EQU  PARTBL+$12    HARD COPY CHAR OUTPUT
YECHOC EQU  PARTBL+$15    MONITOR ECHO CONTROL ADR
YCPORT EQU  PARTBL+$17    CONTROL I/O PORT 0=DISABLED
YPPORT EQU  PARTBL+$19    PRINTER I/O PORT 0=DISABLED
YDEPTH EQU  PARTBL+$1B    LINES/PAGE
YWIDTH EQU  PARTBL+$1C    CHARACTERS/LINE
YNULLS EQU  PARTBL+$1D    CR/LF NULLS
YHCFLG EQU  PARTBL+$1E    HARD-COPY ENABLE
YEJECT EQU  PARTBL+$1F    BLANK LINES END OF PAGE
YPPPAS EQU  PARTBL+$20    POST PAGE-PAUSE,0=ON.0=OFF
YSYSDR EQU  PARTBL+$21    SYSTEM DRIVE NUMBER
YWRKDR EQU  PARTBL+$22    WORK DRIVE NUMBER
YCLINE EQU  PARTBL+$23    CURRENT LINE NUMBER
YCCOL  EQU  PARTBL+$24    CURRENT CHAR POSITION/COLUMN
YUCSWT EQU  PARTBL+$25    UPPER CASE SHIFT LOCK 0=>NOT UC
YOSWT  EQU  PARTBL+$26    OUTPUT CONTROL SWITCH
YDCMDA EQU  PARTBL+$27    DO COMMAND PROCESSOR ACTIVE
YERSWT EQU  PARTBL+$28    SYSTEM ERROR SWITCH
YCFLG  EQU  PARTBL+$29    COMMAND LOAD FLAG
YLOADE EQU  PARTBL+$2A    LOAD ERROR FLAG
YTAFLG EQU  PARTBL+$2B    VALID TRANSFER ADDRESS FLAG
YTADDR EQU  PARTBL+$2C    TRANSFER ADDRESS
YOFSET EQU  PARTBL+$2E    OFFSET FOR FILE LOAD
YDATE EQU   PARTBL+$30    SYSTEM DATE STRING
YTIME EQU   PARTBL+$40    SYSTEM TIME STRING
EXTTBL EQU  PARTBL+$62    FILE EXTENSION TABLE
```

APPENDIX D

## DOS68 COMMAND ERROR MESSAGES

DOS68 prints only its prompt character unless an error condition occurs. The following are error messages which can be generated by DOS68:

"CMD NOT FOUND" DOS68 could not find the command as being memory resident or disk resident.

"?" DOS68 does not understand the format of the command entered. Try again.

"ILL FILE NAME" A file name was entered incorrectly. Try typing the line again.

"NOT HEX NUM" An invalid digit was encountered in a hexadecimal number. Check the value and try again.

"NO TA" No transfer address was found on the transient command or the file to be RUN. The file was loaded but DOS68 does not know where to begin execution.

"CS ERR: XXXX" A checksum error has occured during the reading of a binary file. XXXX is the address of the object record being loaded. The file has been written on (most likely by someone trying to patch the file). The file should be deleted and replaced with a backup copy.

"CLOSE ERR: XXXX" DOS68 has attempted to close a file left open by some program but the information in the File Control Block (FCB) needed to determine how to close the file is not valid, thus DFM68 cannot close the file. This is usually caused by a program corrupting the contents of the FCB. The only cure for this error is to re-boot DOS68. This is because part of DOS68 may also have been corrupted by the offending program.

"DISC ERR: XX" A Disk File Manager (DFM) error has occurred. XX is the DFM error code indicating the nature of the error. Refer to the ERROR CODES in the DFM Programming Tables to interpret the error code.

## DFM PROGRAMMING TABLES

### DFM ENTRY POINTS

| FUNCTION | NAME | ADDRESS PER DOS68 ORG | | |
|---|---|---|---|---|
| DOS BASE ADDRESS | | $6000 | $A000 | $C000 |
| OPEN DFM | ODFM | $7780 | $B780 | $D780 |
| DFM I/O | DFM | $7786 | $B786 | $D786 |
| CLOSE DFM | CFDM | $7783 | $B783 | $D783 |

### DFM FUNCTION CODES

| CODE NUMBER | CODE NAME | DEFINITION |
|---|---|---|
| 0 | QFREE | * Report free space on disk |
| 1 | QSO4W | * Open a sequential file for write |
| 2 | QSWRIT | * Write data to sequential file |
| 3 | QSWC | * Close a sequential file for write |
| 4 | QSO4R | * Open a sequential file for read |
| 5 | QSREAD | * Read data from sequential file |
| 6 | QSRC | * Close a sequential file for read |
| 7 | QDEL | Delete a file |
| 8 | QREN | Rename a file |
| 9 | QAPP | Append two files |
| 10 | QDIRI | * Open a disk directory |
| 11 | QDIRT | * Retrieve a file name from the directory |
| 12 | (reserved) | |
| 13 | QRAFC | * Read active FCB chain |
| 14 | (reserved) | |
| 15 | (reserved) | |
| 16 | QLOGD | * Log in a system disk |
| 17 | QLOGE | * Examine logged drive number |
| 18 | QSSR | * Single sector read |
| 19 | QSSW | * Single sector write |
| 20 | QCRF | Create random access file |
| 21 | QORF | Open random access file |
| 22 | QPRF | * Position random access file |
| 23 | QRRF | * Read from random access file |
| 24 | QWRF | * Write to random access file |
| 25 | QCLSRF | Close random access file |
| 26 | (reserved) | |
| 27 | (reserved) | |
| 28 | QERF | Expand random access file |

* means the function processor is memory resident

The disk resident functions are located in 2 system files. overlay files. These files must exist on the system disk for the disk resident DFM functions to be executed.

| DFM OVERLAY FILE | FUNCTIONS: |
|---|---|
| DFM680.??2 | QDEL, QREN, QAPP |
| DFM680.??3 | QCRF, QORF, QCLSRF, QERF |

Where ?? represents the revision number of DFM

## DFM ERROR CODES

| ERROR NO. | ERROR NAME | EXPLANATION |
|---|---|---|
| $01 | EIFC | Invalid DFM function code |
| $02 | EFE | File already exists |
| $03 | EFIB | Master file directory error |
| $04 | EFB | File in use |
| $05 | ENSF | File not found |
| $06 | EEOF | End of file |
| $07 | EDF | Disk full |
| $08 | EIFN | Invalid FCB address |
| $09 | EIFN | Illegal file name |
| $0A | EFS | File status error |
| $0B | EITS | Invalid track or sector number o |
| $0C | EIUN | Illegal unit no. |
| $0D | ---- | Unused, better left alone |
| $0E | EDR | Disc read error |
| $0F | EDW | Disc write error |
| $10 | EIFT | Illegal file type |
| $11 | ENER | Not enough room to create file |
| $12 | EWP | File is write protected |
| $13 | EDP | File is delete protected |
| $14 | EFSE | Random file size error (size=0 or too big) |
| $15 | EDWP | Disk is write protected |
| $20 | ENSD | Non-system disk in logged drive |
| $21 | ESFF | System file format error (should not occur) |
| $22 | ECSS | Checksum error on system file |

## DOS68 CLOSE ERROR CODES

| | |
|------|------|
| 01XX | Illegal file activity. The file is not open for sequential read,write, or random accessing. |
| 02XX | Unused. |
| 03XX | File closing error – XX = DFM error code. |
| 04XX | Read error on free chain descriptor. XX = 1771 Controller error status. |
| 05XX | Write error on free chain descriptor. XX = 1771 Controller error status. |

The following table enumerates the file type codes. These are the only valid file type codes which can appear in the lower four bits of the file type (XFT) in FCB's and FIB's.

### FILE TYPE CODES

| NAME | VALUE | TYPE |
|------|-------|------|
| FTCS | 1 | Sequential compresses ASCII data. |
| FTSQ | 2 | Binary sequential. |
| ---- | 3 | (reserved) |
| FTRB | 4 | Byte mode random access. |
| FTRR | 5 | Record mode random access. |
| ---- | 6-7 | (reserved) |
| ---- | 8-15 | (unused) |

The following table enumerates the file status codes. These are the only valid status codes which can appear in the lower four bits of the file status (XFS) in both FCB's and FIB's.

### FILE STATUS CODES

| NAME | VALUE | TYPE |
|------|-------|------|
| FANA | 0 | Not active |
| FASR | 1 | Sequential read status. |
| FASW | 2 | Sequential write status. |
| FARA | 3 | Random access status. |

## EXTENSION TYPE CODES

| TYPE | INITIAL DEFINITION | USE |
|------|--------------------|-----|
| 0 | BIN | Default extension for Binary binary object files created by the Assembler. |
| 1 | TXT | Default extension for Editor files and Assembler input files. |
| 2 | SRC | A source file. |
| 3 | BAS | A BASIC program |
| 4 | CTL | Default extension for control or procedure files that are processed by EXEC, and procedure files that are created by BUILD. |
| 5 | BAK | Reserved extension to be used only by the Editor for generating backup files. |
| 6 | DAT | A data file. |
| 7 | FOR | A FORTRAN program. |
| 8 | TMP | Reserved extension to be used only by the Editor for naming temporary work files. |
| 9 | ' ' | Spare — user definable. |

SMOKE SIGNAL BROADCASTING

LOGIC DIAGRAM, CONTROLLER BD

BFD-68 REV. A

D7738
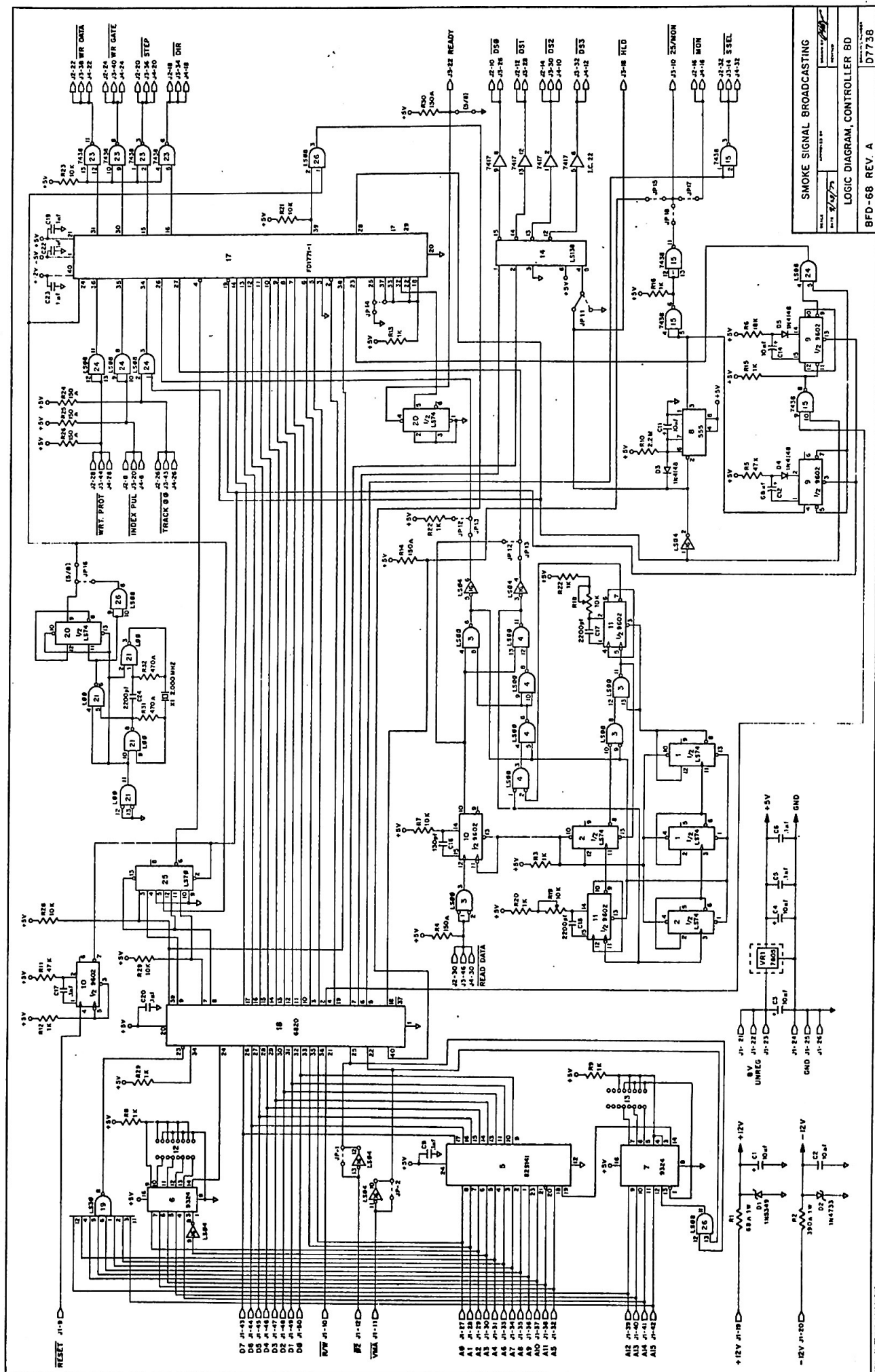
## CONTROLLER PARTS LOCATION

SMOKE SIGNAL BROADCASTING  BFD-68  A REV

© 1978

**CONDOR INC.**
D.C. POWER SUPPLIES
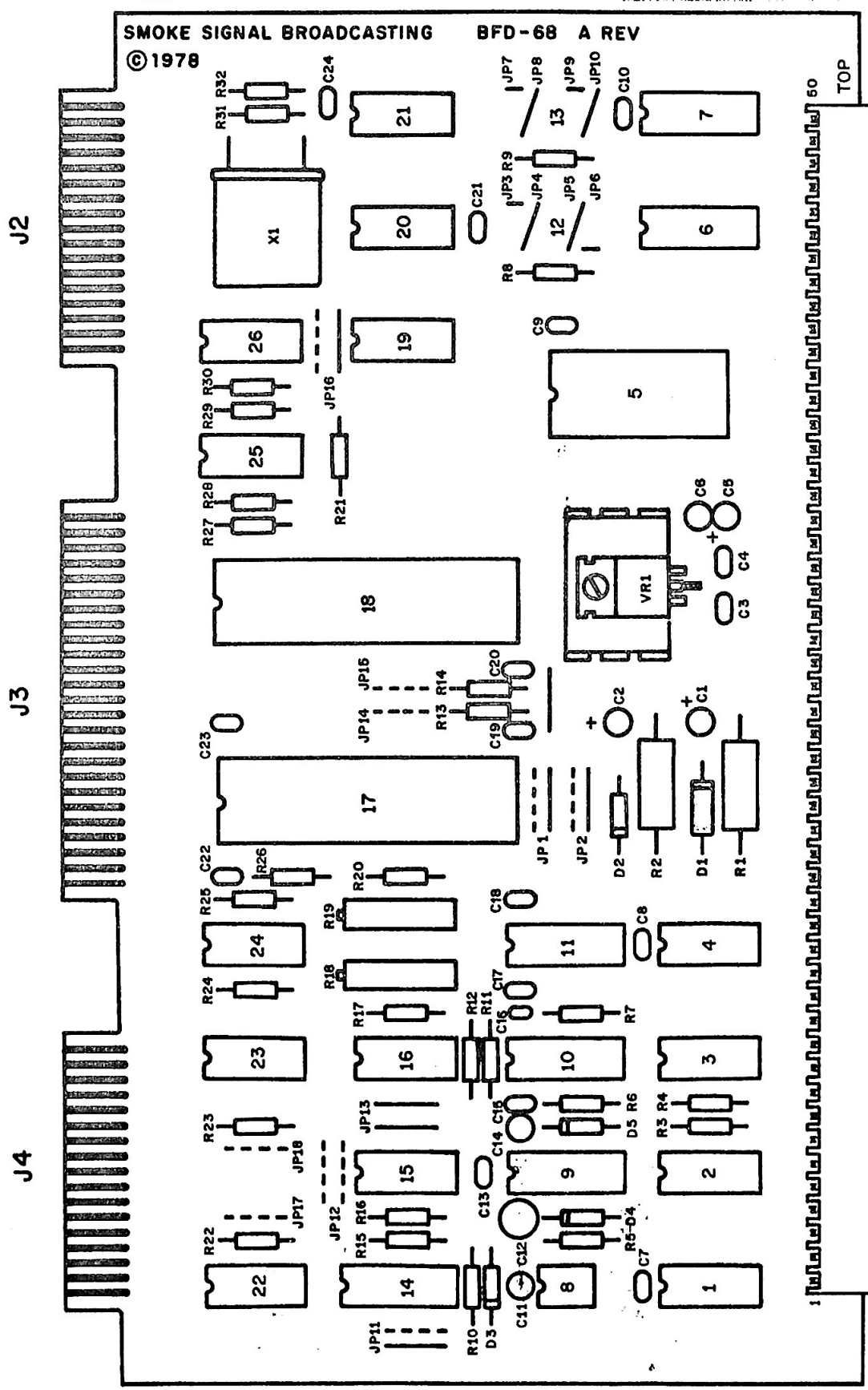
4811 CALLE ALTO
CAMARILLO, CALIF.
93010
(805) 484-2851

Information contained;
1. Schematic
2. Parts List
3. Specifications
4. Outline and Mounting
5. General User Information

MODEL
# FCBB – 90W

APPLICATION DATA

11496

CONDOR INC.
4811 CALLE ALTO
CAMARILLO, CALIF. 93010
(805) 484-2851

# SPECIFICATIONS

| | |
|---|---|
| AC Input: | 115/230vac ±10% 47-440Hz. (Derate output current 10% for 50Hz Operation.) |
| DC Output: | Refer to Voltage/Current Rating Chart. Voltage adjustable ±5% minimum. |
| Input Fusing: | Refer to AC Connection Table. |
| Line Regulation: | ±0.05% for 10% input change. |
| Load Regulation: | ±0.05% for 50% load change. |
| Output Ripple: | 3.0mv Pk-Pk maximum, 0.4mv RMS. |
| Transient Reponse: | 30μ seconds for 50% load change. |
| Short Circuit and Overload Protection: | Automatic current limit/foldback. |
| Reverse Voltage Protection: | Provided on Dual and Triple output units. |
| Remote Sensing: | Provided on outputs above 15watts, open sense lead protection built-in. |
| Stability: | ±0.05% for 24 hours after warm-up. |
| Temperature Rating: | 0°C to 50°C full rated, derated linearly to 40% at 70°C. |
| Temperature Coefficient: | ±0.02%/°C maximum, 0.002%/°C typical. |
| Cooling | Units are full rated 50°C in free air, must be derated or fan cooled when mounted in confined area. |
| Efficiency: | 5V units-45%, 12 and 15V units-55%, 20 and 24V units-60% at nominal input, full load on output. |
| Vibration: | Per Mil-Std-810B, Method 514, Procedure I, curve AB (to 50Hz). |
| Shock: | Per Mil-Std-810B, Method 516, Procedure V. |

## AC CONNECTION TABLE

| FOR USE AT | 115 VAC | 230 VAC |
|---|---|---|
| JUMPER | 1&3,2&4 | 2&3 |
| APPLY AC AT | 1&4 | 1&4 |
| FUSE INPUT AT | 3.0 AMPS | 1.5 AMPS |

## VOLTAGE/CURRENT RATING CHART

| MODEL | OUTPUT RATING |
|---|---|
| FCBB-90W | 24V. AT 3.0A.(3.5Pk) |
| | +5V. AT 3.0A.W/OVP OVP SET AT 6.2±.4V. |
| | -5V. AT 1.0A.W/OVP OVP SET AT 6.2±.4V. |

## 2 YEAR GUARANTEE

CONDOR will repair or replace any power supply of its manufacture that does not perform to published specifications as a result of defective materials or workmanship for a period of 2 years from date of original purchase. No other obligations or liabilities are implied or expressed. Returns must be freight prepaid.



CBB CASE
UNIT WEIGHT: 8 lbs.
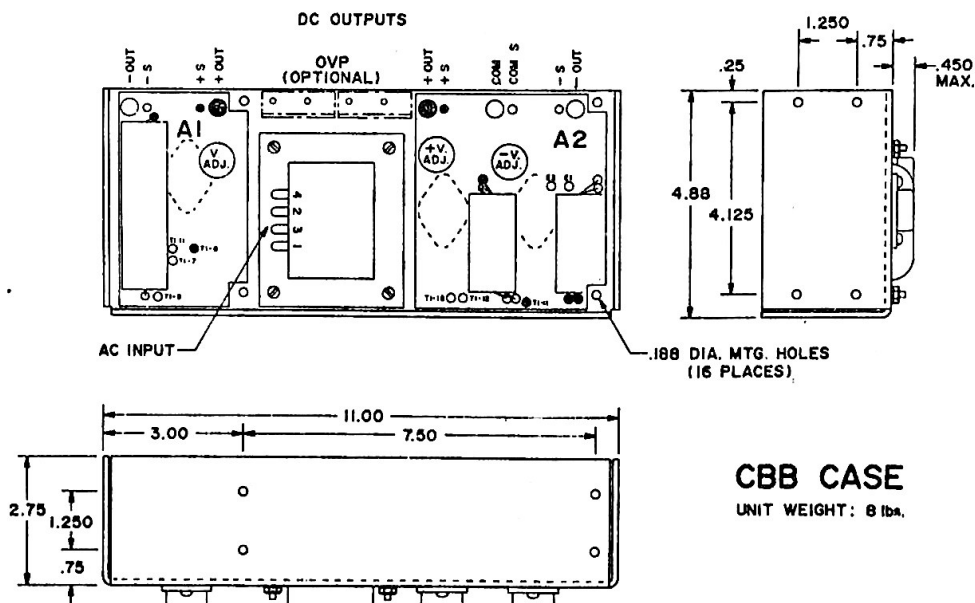
| ...ES. | C12-3.4 C15-3 | CONDOR P/N | QTY | FCBB 24V. SECTION | CONDOR P/N | QTY. | DESCRIPTION |
|---|---|---|---|---|---|---|---|
| C2 | 7300/35 | 102-10098 | 1 | 3700/60 | 102-10102 | 1 | CAPACITOR, ALUM. ELECT. |
| C3 | .001/100 | 104-10093 | 1 | .001/100 | 104-10093 | 1 | MYLAR |
| C4 | 1/50 | 101-10111 | 1 | 1/50 | 101-10111 | 1 | ALUM. ELECT. |
| C5 | 330/35 | 101-10109 | 1 | 330/35 | 101-10109 | 1 | CAPACITOR, ALUM. ELECT. |
| | | | | | | | |
| CR3,4,5,6 | AE3B | 111-10252 | 4 | AE3B | 111-10252 | 4 | DIODE, RECT.,3A.,100V. |
| CR7 | AE1C | 111-10251 | 1 | AE1C | 111-10251 | 1 | DIODE, RECT.,1A.,200V. |
| CR8 | — | — | — | — | — | — | DIODE, ZENER |
| SCR1 | — | — | — | — | — | — | SCR |
| | | | | | | | |
| Q1 | 2N6055 | 171-10263 | 1 | 2N6055 | 171-10263 | 1 | XSTR,DARLINGTON, NPN |
| R2,11,15,17 | 6.8Ω | 151-10313 | 4 | 6.8Ω | 151-10313 | 4 | RESISTOR, 1/2W.,5%,C.F. |
| R3 | 300Ω | 151-10352 | 1 | 300Ω | 151-10352 | 1 | |
| R6 | 220Ω | 151-10349 | 1 | 330Ω | 151-10353 | 1 | |
| R7 | 1K | 151-10365 | 1 | 2.2K | 151-10373 | 1 | |
| R8 | 7.5K | 151-10386 | 1 | 10K | 151-10389 | 1 | |
| R9 | 2.2K | 151-10373 | 1 | 2.2K | 151-10383 | 1 | |
| R16 | — | — | — | — | — | — | 5%, C.F. |
| R13 | 750Ω | 152-10502 | 1 | 2K | 152-10512 | 1 | 1%, M.F. |
| R14 | 1.6K | 152-10510 | 1 | 1K | 152-10505 | 1 | 1/2W.,1%, M.F. |
| R4 | .12Ω | 158-10077 | 1 | .56Ω | 158-10082 | 2 | RESISTOR, 2W.,10%,W.W. |
| R12 | 1.5K | 155-10085 | 1 | 1.5K | 155-10085 | 1 | POTENTIOMETER,2W,W.W.,HORZ. |
| | | | | | | | |
| U1 | Ua723 | 130-10287 | 1 | Ua723 | 130-10287 | 1 | I.C. VOLTAGE REGULATOR |
| | | | | | | | |
| T1 C12/24 | 11073 | 082-11073 | 1 | 11083 | 082-11083 | 1 | TRANSFORMER |
| T1 C15/28 | 11078 | 082-11078 | 1 | 11088 | 082-11088 | 1 | TRANSFORMER |
| | | | | | | | |
| PCB | 11041 | 505-11041 | 1 | 11041 | 505-11041 | 1 | PRINTED CIRCUIT BOARD |
| | | | | | | | |
| CHASSIS | 11002 | 412-11002 | 1 | 11002 | 412-11002 | 1 | CHASSIS |

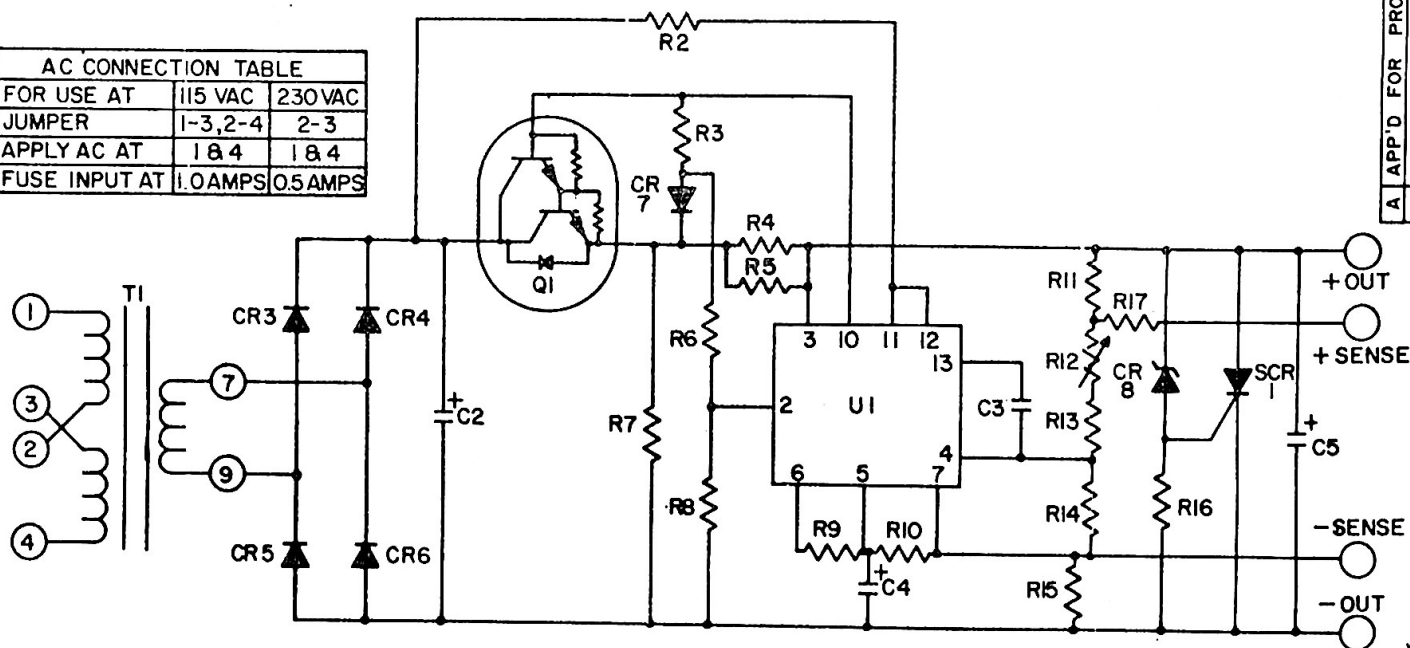| AC CONNECTION TABLE | | |
|---|---|---|
| FOR USE AT | 115 VAC | 230 VAC |
| JUMPER | 1-3,2-4 | 2-3 |
| APPLY AC AT | 1 & 4 | 1 & 4 |
| FUSE INPUT AT | 1.0 AMPS | 0.5 AMPS |

| REF. DES. | BB5-3/OVP | CONDOR P/N | QTY. | CC5-6/OVP | CONDOR P/N | QTY. | DESCRIPTION |
|---|---|---|---|---|---|---|---|
| C2,10 | 220/16 | 101-10107 | 2 | 220/16 | 101-10107 | 2 | CAPACITOR, ALUM., ELECT. |
| C8 | 9000/16 | 102-10097 | 1 | 9000/16 | 102-10097 | 1 | |
| C9 | — | — | — | 9000/16 | 102-10097 | 1 | ALUM., ELECT. |
| C4 | .001/100 | 104-10093 | 1 | .001/100 | 104-10093 | 1 | CAPACITOR, MYLAR |
| CR4,6,13 | 1N4003 | 111-10251 | 3 | 1N4003 | 111-10251 | 3 | DIODE, RECT., 200V. 1A. |
| CR12,14 | 1N5401 | 111-10252 | 2 | MR750 | 111-10256 | 2 | 100V, 3A. / 50V. 22A. |
| | | | | | | | RECT. |
| CR2 | 1N752A | 112-10006 | 1 | 1N752A | 112-10006 | 1 | DIODE, ZENER |
| SCR2 | S0303LS3 | 160-10258 | 1 | S0508LS3 | 160-10013 | 1 | SCR 30V. 3A. / 50V. 8A. |
| Q1 | 2N6055 | 171-10263 | — | 2N6055 | 171-10263 | — | XSTR., DARLINGTON, NPN |
| Q2 | 2N6055 | 171-10263 | 1 | 2N6055 | 171-10263 | 1 | XSTR., DARLINGTON, NPN |
| Q3 | | | | | | | XSTR., POWER |
| R2,35,36 | 180Ω | 151-10347 | 3 | 180Ω | 151-10347 | 3 | RESISTOR, 1/2W., 5%, C.F. |
| R4 | 47Ω | 151-10333 | 1 | 47Ω | 151-10333 | 1 | |
| R23,24 | 2.2K | 151-10373 | 2 | 2.2K | 151-10373 | 2 | |
| R25 | 4.7K | 151-10301 | 1 | 4.7K | 151-10301 | 1 | |
| R26 | 470Ω | 151-10397 | 1 | 470Ω | 151-10397 | 1 | |
| | | 151- | | | 151- | | |
| | | 151- | | | 151- | | |
| | | 151- | | | 151- | | |
| | | 151- | | | 151- | | |
| | | 151- | | | 151- | | |
| | | 151- | | | 151- | | 5% C.F. |
| R10 | 1.6K | 152-10510 | 1 | 1.6K | 152-10510 | 1 | 1% M.F. |
| | | 152- | | | 152- | | 1/2W. 1% M.F. |
| R33 | .12Ω | 158-10077 | 1 | .12Ω | 158-10077 | 1 | 2W. 10% W.W. |
| R34 | — | 158- | — | .12Ω | 158-10077 | 1 | RESISTOR, 2W., 10%, W.W. |
| R12 | 1.5K | 155-10085 | 1 | 1.5K | 155-10085 | 1 | POTENTIOMETER, 2W., W.W., HORZ. |
| U2 | Ua723 | 130-10287 | 1 | Ua723 | 130-10287 | 1 | I.C. VOLTAGE REGULATOR |
| T1 | 11388 | 082-11388 | 1 | 11393 | 082-11393 | 1 | TRANSFORMER, POWER |
| PCB | 11386 | 505-11386 | 1 | 11386 | 505-11386 | 1 | PRINTED CIRCUIT BOARD |
| CHASSIS | 11007 | 412-11007 | 1 | 11008 | 412-11008 | 1 | CHASSIS, ALUMINUM |

PRODUCTION NOTES:
1.) SCR 2 TO BE HEATSINKED ON CC512 ONLY

| AC CONNECTION TABLE | | |
|---|---|---|
| FOR USE AT | 115 VAC | 230 VAC |
| JUMPER | 1&3, 2&4 | 2&3 |
| APPLY A C AT | 1&4 | 1&4 |
| 'BB' FUSE INPUT AT | 1.0 AMPS | 0.5 AMPS |
| 'CC' FUSE INPUT AT | 2.0 AMPS | 1.0 AMPS |

| REF. DES. | BB5-3/OVP | CONDOR P/N | QTY. | CC5-6/OVP | CONDOR P/N | QTY. | DESCRIPTION |
|---|---|---|---|---|---|---|---|
| C1 | 220/16 | 101-10107 | 1 | 220/16 | 101-10107 | 1 | CAPACITOR, ALUM., ELECT. |
| C5 | 9000/16 | 102-10097 | 1 | 9000/16 | 102-10097 | 1 | ALUM., ELECT. |
| C6 | – | – | – | 9000/16 | 102-10097 | 1 | ALUM., ELECT. |
| C7 | 220/16 | 101-10107 | 1 | 220/16 | 101-10107 | 1 | ALUM., ELECT. |
| C3 | .001/100 | 104-10093 | 1 | .001/100 | 104-10093 | 1 | CAPACITOR, MYLAR |
| CR3,5,11 | 1N4003 | 111-10251 | 3 | 1N4003 | 111-10251 | 3 | DIODE, RECT., 200V. 1A. |
| CR7,9 | 1N5401 | 111-10252 | 2 | 1N5401 | 111-10252 | 2 | 100V. 3A. |
| CR8,10 | – | | – | | | – | RECT., |
| CR1 | 1N752A | 112-10006 | 1 | 1N752A | 112-10006 | 1 | DIODE, ZENER |
| SCR1 | SO303LS3 | 160-10258 | 1 | SO303LS3 | 160-10258 | 1 | SCR |
| Q1 | 2N6055 | 171-10263 | 1 | 2N6055 | 171-10263 | 1 | XSTR., DARLINGTON, NPN |
| Q2 | | | | | | | XSTR., POWER |
| Q3 | | | | | | | XSTR., POWER |
| R1,32,38 | 180 Ω | 151-10347 | 3 | 180 Ω | 151-10347 | 3 | RESISTOR, 1/2 W., 5%, C.F. |
| R3 | 47 Ω | 151-10333 | 1 | 47 Ω | 151-10333 | 1 | |
| R21,27 | 2.2K | 151-10373 | 2 | 2.2K | 151-10373 | 2 | |
| R28 | 4.7K | 151-10381 | 1 | 4.7K | 151-10381 | 1 | |
| R29 | 470 Ω | 151-10357 | 1 | 470 Ω | 151-10357 | 1 | |
| R8 | 6.8 Ω | 151-10313 | 1 | 6.8 Ω | 151-10313 | 1 | |
| R37 | – | 151- | – | – | 151- | – | |
| | | 151- | | | 151- | | |
| | | 151- | | | 151- | | |
| | | 151- | | | 151- | | |
| | | 151- | | | 151- | | |
| | | 151- | | | 151- | | 5%, C.F. |
| R7 | 1.6K | 152-10310 | 1 | 1.6K | 152-10310 | 1 | 1%, M.F. |
| | | 152- | | | 152- | | 1/2 W., 1%, M.F. |
| R30 | .12 Ω | 158-10077 | 1 | .12 Ω | 158-10077 | 1 | 2 W., 10%, W.W. |
| R31 | | 158- | | | 158- | – | RESISTOR, 2 W., 10%, W.W. |
| R9 | 1.5K | 155-10085 | 1 | 1.5K | 155-10085 | 1 | POTENTIOMETER, 2 W., W.W., HORZ. |
| U1 | Uα723 | 130-10287 | 1 | Uα723 | 130-10287 | 1 | I.C. VOLTAGE REGULATOR |

PRODUCTION NOTES:
1.)

| AC CONNECTION TABLE | | |
|---|---|---|
| FOR USE AT | 115 VAC | 230 VAC |
| JUMPER | 1&3,2&4 | 2&3 |
| APPLY AC AT | 1&4 | 1&4 |
| 'BB' FUSE INPUT AT | 1.0AMPS | 0.5AMPS |
| 'CC' FUSE INPUT AT | 2.0AMPS | 1.0AMPS |